

157R 1707

UK Patent Application GB 2 182 476 A

(43) Application published 13 May 1987

(21) Application No **8527566**

(22) Date of filing **8 Nov 1985**

(30) Priority data

(31) **8526879**

(32) **31 Oct 1985**

(33) **GB**

(71) Applicant

Arthur Edward Thomas Limited

(Incorporated in United Kingdom)

26 Millrace Close, Lisvane, Cardiff, Wales

(72) Inventor

Arthur Edward Thomas

(74) Agent and/or Address for Service

R. G. C. Jenkins & Co.

12-15 Fetter Lane, London EC4A 1PL

(51) INT CL⁴

G07F 17/34

(52) Domestic classification (Edition I):

G4V 118 AA

U1S 1174 G4V

(56) Documents cited

GB A 2170636

GB A 2113881

GB A 2092795

GB A 2130413

GB A 2098780

GB 1582942

GB A 2116345

(58) Field of search

G4V

Selected US specifications from IPC sub-classes G07F A63F

(54) Gaming machines

(57) A gaming machine comprises mechanical or simulated reels (10) for displaying symbols aligned with a plurality of potential win lines (18,30,32,34 and 36). Following the spinning of the reels, the user is given a limited opportunity to select which of the win lines is to be used. The number of win lines which he may select can be determined on a random or pseudo-random basis possibly during a gambling mode which occurs before the reel spinning operation is completed. This gambling mode may also be operable to increase the effective stake.

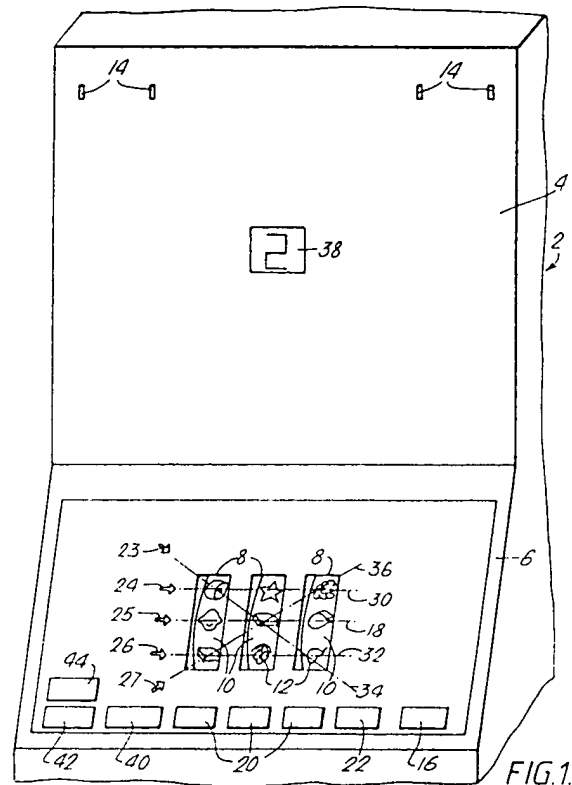


FIG.1.

1/2

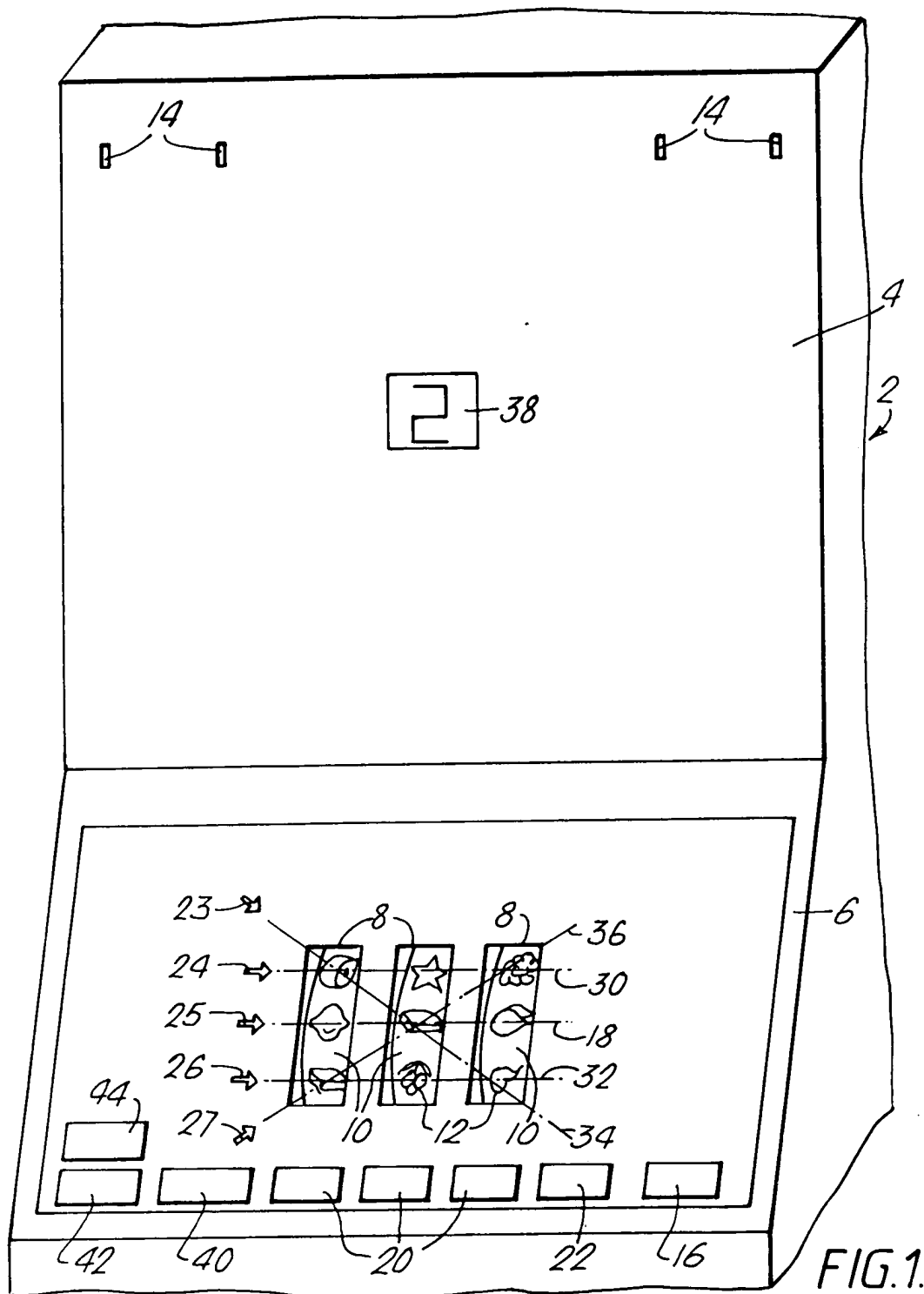


FIG. 1.

SPECIFICATION

Gaming machines

- 5 This invention relates to gaming machines, which term is used herein to refer to any device by means of which a user can play a game and, depending upon the results of the game, obtain a credit value. The machine preferably pays out cash and/or tokens in an amount corresponding to the credit value.

- 10 In the art, those machines which pay out only cash are referred to as "gaming machines". Herein, however, the term gaming machine is used in a generic sense, as the invention is applicable also to other types of machines such as those known as "amusement with prize" machines, which pay out both cash and tokens. The invention is particularly but not exclusively applicable to machines known as "fruit machines", which incorporate symbol-carrying reels which are spun during the playing of a game so as to alter in a random or pseudo-random manner the combination of symbols which can be viewed by the user. The invention is also applicable to machines which incorporate other forms of display, such as a panel carrying symbols which are selectively illuminated during the playing of a game, or a video display screen which displays simulated reels or other symbols such as playing cards. Patent Specification GB-A-2,117,155, for example, describes a machine to which the present invention can be applied.

- 35 Generally, when playing these types of machines, a game can result in any of several different types of winning result, and a credit value accorded to the user on achieving a win depends upon which of the types of winning result he has achieved.

- 40 It would be desirable to provide a gaming machine which is of enhanced attractiveness to a potential player, so as to increase the use of the machine.

- 45 In accordance with one aspect of the present invention there is provided a gaming machine which is operable to display symbols forming a plurality of different combinations, the machine being able to select under at least partial control of a player at least one of the displayed combinations and to award a win to the player if a selected combination comprises a predetermined winning symbol or group of symbols.

- 55 In accordance with another aspect of the invention there is provided a gaming machine which is operable to display symbols of different sets in different combinations and thereafter to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with a win line, wherein, following the display of the symbols, the machine is operable to perform under at least partial control of the user a selection operation whereby the location of the win line is selected from a plurality of different possible locations.

ation whereby the location of the win line is selected from a plurality of different possible locations.

- 70 In accordance with a further aspect of the invention there is provided a gaming machine which is operable to display symbols of different sets in different combinations and thereafter to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with a win line, wherein the machine is operable to determine the number of win lines on a random or pseudo-random basis, and the user is allowed at least partial control in the positioning of the win line(s).

- 80 It is known to provide conventional fruit machines with a "nudge" facility whereby a user can index a reel so as to change the combination of symbols displayed along a win line. The preferred embodiment of the invention provides an alternative game (although it is noted that the conventional "nudge" facility can be provided in addition), which is considered to be attractive to potential users. In this alternative, instead of changing the combination of symbols on a win line, the user is able to relocate the win line itself relative to the symbols.

- 85 In accordance with a still further aspect of the invention, a gaming machine is operable to display symbols of different sets in different combinations and thereafter to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with at least one win line, wherein the location of the or each win line and/or the number of win lines is/are selected at least in part by the machine on a random or pseudo-random basis.

- 100 It is envisaged that, as in conventional fruit machines, credit would be awarded if either a predetermined winning symbol or a predetermined winning combination of symbols appears on the selected win line, the value of the credit being dependent upon which symbol or combination of symbols appears. Alternatively, the machine could be arranged to provide a credit award only in response to a winning combination of symbols appearing on the win line.

- 110 In the preferred embodiment, a single win line is selected. However, it is possible for a plurality, or a variable number, of win lines to be selectable. In the latter case, if a plurality of win lines is selected, and winning symbols appear on more than one win line, the machine may either credit the user with the sum of the values of the respective wins, or the highest of the respective wins.

- 125 The invention is particularly useful when applied to machines having mechanical or simulated reels and capable of displaying simultaneously a plurality of symbols from each reel. The opportunity to adjust the win line (i.e. to select from the different displayed combinations of symbols) is preferably accorded the

player only on certain occasions, which may be determined randomly or pseudo-randomly, and possibly in dependence upon which symbols are displayed following the spinning of the reels in the normal course of a game.

The machine preferably has several selectable win lines which are preferably straight and which preferably include at least two which are not parallel to each other.

If desired, the machine can be arranged automatically to select one of the win lines which may for example be the same every time or vary in a random or pseudo-random manner. The player may then be given an opportunity to adjust the selected win line. The win lines may for example form a sequential arrangement, and the user may be able to press suitable means (such as a push-button) to cause the presently-selected win line no longer to be selected, and instead the next adjacent win line in the sequence to be selected. There may be a limited number of times he can perform this operation, which limit may if desired be variable on a random or pseudo-random basis. Alternatively, there may be a limit to the amount of time the user is allowed to perform this operation.

Alternatively, the machine may repeatedly select different win lines, either in a sequence or on a random or pseudo-random basis, the player being able to halt this operation whereby the win line selected by the machine at the point at which the operation was halted determines whether or not a win is to be awarded to the player.

Preferably, the selection from the possible win lines is made after the reels have stopped spinning and before the machine determines whether or not to award credit to the player. Alternatively, the machine can be arranged to award credit as normal, using either a predetermined or variable one of the win lines, then permit selection of a different win line and award further credit if a further winning symbol or combination of symbols appears on the different win line. Another alternative would be to allow the user to select from a plurality of win lines, and award the user with a credit if the selected win line contains a winning symbol or combination of symbols, before the normal reel spinning operation takes place.

An arrangement embodying the invention will now be described by way of example with reference to the accompanying drawings, in which:

Figure 1 shows a gaming machine in accordance with the invention, and

Figure 2 is a block diagram of the circuitry of the machine.

The specific embodiment to be described is a version of the well-known "fruit machine". Many examples of such machines are readily available, and the way in which they operate is well-known to those familiar with the art.

Referring to Figure 1, the machine 2 has a

vertical facia or panel 4 and an inclined facia or panel 6. The facia 6 has three apertures 8, which reveal portions of the circumferences of three reels 10 which are mounted for rotation about a common horizontal axis. The reels carry symbols such as those shown at 12 on their peripheries, three symbols of each reel being visible through the apertures 8.

The machine can be played by inserting a coin or a token through an appropriate one of several slots 14.

After the user has inserted a coin or token, a game may be started. This is achieved by pressing a start button 16. This causes the three reels 10 to spin, which is preferably achieved by using a stepper motor for each reel. The reels then stop spinning, their final positions being determined in a random or pseudo-random manner. If the reels are positioned such that certain symbols are aligned along a win line 18, the user is credited with a win value, which in this machine results in the paying out of coins in an amount corresponding to the win value.

Occasionally, a "hold" feature is provided whereby the user is given the opportunity to press one or more hold buttons 20, which will prevent, during the subsequent reel-spinning operation, the spinning of each reel associated with a hold button which has been pressed. There is a cancel button 22 for cancelling the selection of reels using the hold buttons to permit a different selection before the reel-spinning operation.

The operation of the machine as described so far is conventional.

The panel 6 is also provided with win line indicators 23 to 27. Each of these can be selectively illuminated by energisation of a respective lamp (not shown) disposed behind the panel 6. Each indicator is intended to designate a group of symbols aligned along a respective win line. Indicator 25 indicates the win line 18 referred to above, which is formed of a substantially horizontal line of symbols of the respective reels 10. The indicators 24 and 26 indicate win lines 30 and 32 which are parallel to and located respectively above and below the win line 18. The indicators 23 and 27 indicate respective diagonal win lines 34 and 36. The win line 34 has thereon the uppermost symbol of the left reel, the central symbol of the central reel and the lowermost symbol of the right reel. The win line 36 has thereon the lowermost symbol of the left reel, the central symbol of the central reel and the uppermost symbol of the right reel.

It will be appreciated that in the case of each win line, all the symbols are carried by respective different reels. It would be possible, however, to have a win line containing symbols from the same reel. It will be appreciated also that by having more reels and/or more symbols visible on each reel, a greater

2182476

2/2

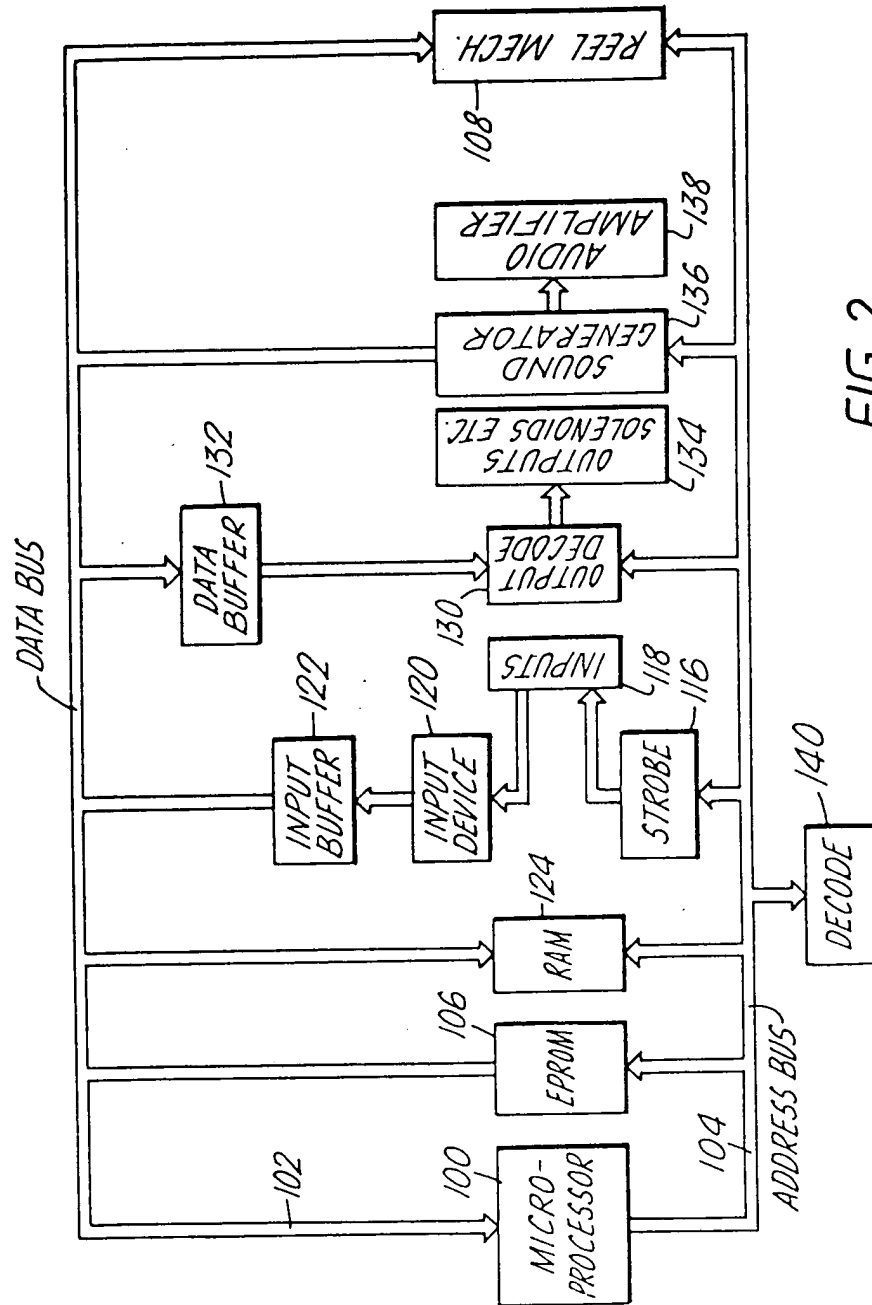


FIG. 2.

SPECIFICATION

Gaming machines

5 This invention relates to gaming machines, which term is used herein to refer to any device by means of which a user can play a game and, depending upon the results of the game, obtain a credit value. The machine preferably pays out cash and/or tokens in an amount corresponding to the credit value.

10 In the art, those machines which pay out only cash are referred to as "gaming machines". Herein, however, the term gaming machine is used in a generic sense, as the invention is applicable also to other types of machines such as those known as "amusement with prize" machines, which pay out both cash and tokens. The invention is particularly but not exclusively applicable to machines known as "fruit machines", which incorporate symbol-carrying reels which are spun during the playing of a game so as to alter in a random or pseudo-random manner the combination of symbols which can be viewed by the user. The invention is also applicable to machines which incorporate other forms of display, such as a panel carrying symbols which are selectively illuminated during the playing of a game, or a video display screen which displays simulated reels or other symbols such as playing cards. Patent Specification GB-A-2,117,155, for example, describes a machine to which the present invention can be applied.

35 Generally, when playing these types of machines, a game can result in any of several different types of winning result, and a credit value accorded to the user on achieving a win depends upon which of the types of winning result he has achieved.

40 It would be desirable to provide a gaming machine which is of enhanced attractiveness to a potential player, so as to increase the use of the machine.

45 In accordance with one aspect of the present invention there is provided a gaming machine which is operable to display symbols forming a plurality of different combinations, the machine being able to select under at least partial control of a player at least one of the displayed combinations and to award a win to the player if a selected combination comprises a predetermined winning symbol or group of symbols.

50 In accordance with another aspect of the invention there is provided a gaming machine which is operable to display symbols of different sets in different combinations and thereafter to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with a win line, wherein, following the display of the symbols, the machine is operable to perform under at least partial control of the user a selection oper-

ation whereby the location of the win line is selected from a plurality of different possible locations.

70 In accordance with a further aspect of the invention there is provided a gaming machine which is operable to display symbols of different sets in different combinations and thereafter to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with a win line, wherein the machine is operable to determine the number of win lines on a random or pseudo-random basis, and the user is allowed at least partial control in the positioning of the win line(s).

80 It is known to provide conventional fruit machines with a "nudge" facility whereby a user can index a reel so as to change the combination of symbols displayed along a win line. The preferred embodiment of the invention provides an alternative game (although it is noted that the conventional "nudge" facility can be provided in addition), which is considered to be attractive to potential users. In this alternative, instead of changing the combination of symbols on a win line, the user is able to relocate the win line itself relative to the symbols.

85 In accordance with a still further aspect of the invention, a gaming machine is operable to display symbols of different sets in different combinations and thereafter to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with at least one win line, wherein the location of the or each win line and/or the number of win lines is/are selected at least in part by the machine on a random or pseudo-random basis.

100 It is envisaged that, as in conventional fruit machines, credit would be awarded if either a predetermined winning symbol or a predetermined winning combination of symbols appears on the selected win line, the value of the credit being dependent upon which symbol or combination of symbols appears. Alternatively, the machine could be arranged to provide a credit award only in response to a winning combination of symbols appearing on the win line.

105 In the preferred embodiment, a single win line is selected. However, it is possible for a plurality, or a variable number, of win lines to be selectable. In the latter case, if a plurality of win lines is selected, and winning symbols appear on more than one win line, the machine may either credit the user with the sum of the values of the respective wins, or the highest of the respective wins.

120 The invention is particularly useful when applied to machines having mechanical or simulated reels and capable of displaying simultaneously a plurality of symbols from each reel. The opportunity to adjust the win line (i.e. to select from the different displayed combinations of symbols) is preferably accorded the

player only on certain occasions, which may be determined randomly or pseudo-randomly, and possibly in dependence upon which symbols are displayed following the spinning of the reels in the normal course of a game.

The machine preferably has several selectable win lines which are preferably straight and which preferably include at least two which are not parallel to each other.

- 10 If desired, the machine can be arranged automatically to select one of the win lines which may for example be the same every time or vary in a random or pseudo-random manner. The player may then be given an opportunity to adjust the selected win line.
- 15 The win lines may for example form a sequential arrangement, and the user may be able to press suitable means (such as a push-button) to cause the presently-selected win line no longer to be selected, and instead the next adjacent win line in the sequence to be selected. There may be a limited number of times he can perform this operation, which limit may if desired be variable on a random or pseudo-random basis. Alternatively, there may be a limit to the amount of time the user is allowed to perform this operation.

- Alternatively, the machine may repeatedly select different win lines, either in a sequence or on a random or pseudo-random basis, the player being able to halt this operation whereby the win line selected by the machine at the point at which the operation was halted determines whether or not a win is to be awarded to the player.

- Preferably, the selection from the possible win lines is made after the reels have stopped spinning and before the machine determines whether or not to award credit to the player.
- 40 Alternatively, the machine can be arranged to award credit as normal, using either a predetermined or variable one of the win lines, then permit selection of a different win line and award further credit if a further winning symbol or combination of symbols appears on the different win line. Another alternative would be to allow the user to select from a plurality of win lines, and award the user with a credit if the selected win line contains a winning symbol or combination of symbols, before the normal reel spinning operation takes place.

- An arrangement embodying the invention will now be described by way of example with reference to the accompanying drawings, in which:

Figure 1 shows a gaming machine in accordance with the invention, and

Figure 2 is a block diagram of the circuitry of the machine.

- 60 The specific embodiment to be described is a version of the well-known "fruit machine". Many examples of such machines are readily available, and the way in which they operate is well-known to those familiar with the art.
- 65 Referring to Figure 1, the machine 2 has a

vertical facia or panel 4 and an inclined facia or panel 6. The facia 6 has three apertures 8, which reveal portions of the circumferences of three reels 10 which are mounted for rotation about a common horizontal axis. The reels carry symbols such as those shown at 12 on their peripheries, three symbols of each reel being visible through the apertures 8.

- 70 The machine can be played by inserting a coin or a token through an appropriate one of several slots 14.

- After the user has inserted a coin or token, a game may be started. This is achieved by pressing a start button 16. This causes the three reels 10 to spin, which is preferably achieved by using a stepper motor for each reel. The reels then stop spinning, their final positions being determined in a random or pseudo-random manner. If the reels are positioned such that certain symbols are aligned along a win line 18, the user is credited with a win value, which in this machine results in the paying out of coins in an amount corresponding to the win value.

- 90 Occasionally, a "hold" feature is provided whereby the user is given the opportunity to press one or more hold buttons 20, which will prevent, during the subsequent reel-spinning operation, the spinning of each reel associated with a hold button which has been pressed. There is a cancel button 22 for cancelling the selection of reels using the hold buttons to permit a different selection before the reel-spinning operation.

- 100 The operation of the machine as described so far is conventional.

- The panel 6 is also provided with win line indicators 23 to 27. Each of these can be selectively illuminated by energisation of a respective lamp (not shown) disposed behind the panel 6. Each indicator is intended to designate a group of symbols aligned along a respective win line. Indicator 25 indicates the win line 18 referred to above, which is formed of a substantially horizontal line of symbols of the respective reels 10. The indicators 24 and 26 indicate win lines 30 and 32 which are parallel to and located respectively above and below the win line 18. The indicators 23 and 27 indicate respective diagonal win lines 34 and 36. The win line 34 has thereon the uppermost symbol of the left reel, the central symbol of the central reel and the lowermost symbol of the right reel. The win line 36 has thereon the lowermost symbol of the left reel, the central symbol of the central reel and the uppermost symbol of the right reel.

- 125 It will be appreciated that in the case of each win line, all the symbols are carried by respective different reels. It would be possible, however, to have a win line containing symbols from the same reel. It will be appreciated also that by having more reels and/or more symbols visible on each reel, a greater
- 130

number of win lines could be provided.

In the illustrated embodiment, the win lines 18, 30, 32, 34 and 36 are nominal lines, but it is preferred that suitable markings be provided on the panel 6 to indicate the locations of those win lines and to show which symbols belong to which win lines.

During the normal operation of the machine as described above, the indicator 25 is illuminated either permanently or following the spinning of the reels to indicate that an award will be paid out if a suitable combination of symbols is displayed on the win line 18.

Occasionally, a bonus feature is awarded, e.g. on random or pseudo-random occasions. This may be indicated to the user by illumination of a suitable sign (not shown) after the reels have stopped spinning. At the same time, a digital display 38 on the vertical panel 4 is caused to display a randomly or pseudo-randomly selected number.

The indicator 25 is then intermittently illuminated to indicate to the player that he may, if he wishes, press a collect button 40, following which, if a winning combination is displayed on the win line 18, the player is awarded with a credit in an amount corresponding to the winning combination.

Instead, however, the player may press a nudge down button 42, which will cause the machine to cease to illuminate the indicator 25 and instead to illuminate intermittently the downwardly adjacent indicator 26. This will signify to the player that if he presses the collect button 40 he will be accorded a credit value in dependence on whether or not a winning combination is present on the win line 32.

Pressing the collect button 40 at any stage terminates the present game. If the button 40 is not pressed the button 42 can again be pressed so that the indicator 27 is intermittently illuminated in place of the indicator 26, and any award then given in response to the pressing of the button 40 will be based on the combination of symbols on the win line 36.

Instead of pressing the button 42, the player may press a nudge up button 44, which would cause the intermittent illumination to be transferred to the next upwardly-adjacent indicator, instead of the next downwardly-adjacent indicator.

Each time one of the buttons 42 and 44 is pressed, the number shown by the display 38 is decremented. When this reaches zero, no further nudging operations are permitted in response to the pressing of the buttons 42 and 44.

Instead of selecting always the indicator 25 when the bonus feature is first awarded, the machine can be arranged to choose any of the indicators on a random or pseudo-random basis.

The collect button 40 is not absolutely es-

sential. The machine can be arranged so as automatically to award a credit to the user upon selection of a win line containing a winning combination of symbols.

The machine may be arranged to terminate the bonus feature as soon as an award has been credited to the user, or alternatively the player may be permitted to continue in the hope of obtaining a further award.

Referring to Figure 2, the operation of the machine 2 is under the control of a microprocessor 100 connected to data and address buses 102 and 104, respectively. The way in which the microprocessor 100 operates is determined by a program stored in a non-volatile memory 106, such as an EPROM, connected to the data and address buses 102 and 104.

The data and address buses 102 and 104 are also connected to a reel mechanism 108, which incorporates the reels 10 referred to above.

By applying appropriate addresses on the address bus 104, and by transmitting appropriate data on the data bus 102, the microprocessor 100 can control the number of pulses delivered to the driver motors of each of the reels and thereby cause the reels to rotate by a predetermined amount. Also the positions of the reels can be determined by data delivered to the data bus 102 by the reel mechanism 108.

The address bus 104 is connected to a device 116 for strobing the inputs 118 of the machine 2. The inputs 118 include the above-mentioned switches 16, 20, 22, 40, 42 and 44, and connections to a coin and token validator which generates signals indicating the value of inserted coins and tokens.

Upon actuation of one of the inputs 118, an input device 120 delivers, via an input buffer 122, data to the bus 102 to indicate to the microprocessor 100 that a switch has been actuated or a coin or token has been inserted.

A random access memory 124 coupled to the address buses 102 and 104 is operable, during use, to store such information as the positions of the reels 10 and the amount of accumulated credit.

An output decode device 130 is coupled to the address bus 104 and transmits data received from the address bus 102 via a data buffer 132 to output device 134, including solenoids which are actuated to dispense coins and tokens, lamps on the machine to indicate different modes of operation, the lamps used for illuminating the indicators 23 to 27 and the circuit used to drive the digital display 38.

A sound generator 136 is coupled to the buses 102 and 104 so that the microprocessor can cause the generator to generate audio signals which are delivered to an amplifier 138 and then to a speaker (not shown).

An address decoder 140 is coupled to the address bus 104, and is arranged to enable the devices selected by the microprocessor

100 for transmission or reception of data by means of enable lines (not shown).

Numerous features can be added, and modifications made, to the embodiment described above. Some of these are set out below:

1. The user may be able to select more than one of the win lines. For example, the machine may be arranged so as to make a random or pseudorandom selection of the number of win lines available to the user, the user then being preferably able selectively to position each of those win lines. On the other hand, the machine may be arranged so that the win lines are not movable by the player, but instead are located in fixed, randomly or pseudo-randomly determined locations. Alternatively, the machine may be arranged to illuminate intermittently the indicators 23 to 27 in a sequence in which at certain points two or more of the indicators are simultaneously illuminated. By pressing a button, the user is able to halt the operation. If at that time more than one of the indicators 23 to 27 is illuminated, the machine checks all the indicated win lines, and credits the user with the sum of the individual credit awards determined for each of the selected win lines. This arrangement may be particularly attractive in that it could require considerable skill on the part of the user, who may wish to select one particular win line on which he can see displayed a winning combination of symbols associated with a high credit award, but he may also wish to halt the sequential selection of win lines by the machine at a point at which more than one win line is selected. As another example, the number of selectable win lines may depend on the positions of the reels after they have stopped spinning. Extra win lines may be provided if a certain combination of symbols, or a special symbol, is displayed by the reels following their spinning. As a modification of this example, the positions of such win lines may be fixed, rather than selectable, so that in effect the position of the win lines is determined by the spinning of the reels. As a further example, the user may have the opportunity to "buy" additional win lines so that in effect he is given one or more extra win lines in exchange for a reduction in a stored credit value. The machine may be arranged so that the user can only do this if a credit value used to buy the extra win line or lines has been gained by the winning of a game.

(In a corresponding manner, the user may be able to buy extra nudges, so that the number displayed by the display 38 is increased at the expense of a reduction in the stored credit value.)

2. It is known to provide conventional fruit machines with "gamble" facilities, whereby the user may opt to collect the credit he has been awarded following a winning game, or to perform a gamble operation so that the credit

may be increased or decreased on a random or pseudo-random basis. Such a facility can be provided in a machine according to the present invention. In addition, or alternatively, a different gamble facility can be associated with the bonus feature referred to above. For example, provision may be made whereby the user can, before carrying out the win line selection operation, perform a gamble operation on the number of permitted nudges displayed by the display 38, in the hope of increasing that number. Alternatively, the machine may be arranged so that normally only a certain number (e.g. one) of win lines can be selected by the user, but a gamble facility may be provided whereby, if this option is selected by the user, the machine either increases or decreases (possibly to zero) the number of win lines which can be selected by the user. A display may be provided for indicating how many win lines are selectable. The gambling operation may take place before, after or during the playing of the game (i.e. the spinning of the reels). In the above arrangements, the user gambles in an attempt to increase the number of permitted nudges or win lines, and risks a reduction in that number.

Instead the user may be allowed to bet a certain amount of stored credit (possibly only credit which has been won by playing a game on the machine) the result of the bet either being the loss of that credit or the increase in the permitted number of nudges or win lines (possibly but not necessarily accompanied by the loss of the credit).

3. Instead of using mechanical reels, the machine may incorporate a display capable of displaying electrically alterable symbols, e.g. a video display. The display may show simulated reels bearing symbols on their peripheries, or may simply show strips of symbols each forming a set which corresponds to the symbols on the periphery of a reel. The latter case may be particularly desirable if many different combinations of symbols are to be displayed.

Using an electrically alterable display may also be advantageous if it is desired for the selection of potential winning combinations of symbols is to be achieved by shifting the symbol combinations relative to a win line, rather than shifting the win line. For example, if three strips of symbols are displayed there may be a single indicator for indicating a particular row formed of symbols from the respective strips, and the relative movement between the win line and the displayed combinations of symbols may be adjusted by shifting all the symbols simultaneously on the display while keeping the win line indicator stationary.

4. The machine may have a "wrap-around" feature whereby, for example, if a nudge up operation is performed while the indicator 23 is intermittently illuminated, the indicator 27 becomes intermittently illuminated instead.

That is to say, the win lines are selected sequentially, and following the selection of the win line at the end of the sequence, the win line at the beginning of the sequence is selected.

5 In the described embodiment, the win lines are indicated by a substantially vertical array of indicators 23 to 27, and selection is achieved by nudge up and nudge down operations. The indicators need not, however, be arranged linearly. They may for example be arranged at least partially around the displayed symbols, in which case the user is preferably able to nudge in clockwise and anticlockwise directions.

6. The win line selection operation could take place before or after the reel spinning operation. Indeed, it could also take place during the spinning operation, in which case preferably the reels are temporarily halted while the selection takes place.

7. The machine may be provided with an automatic selection feature whereby the machine automatically selects the win line associated with the most favourable combination of symbols, preferably but not necessarily in response to the user actuating a means provided for selection of the automatic operation. The selection may alternatively be made on a random or pseudo-random basis. The automatic selection operation may be possible only on certain occasions, or every time win line selection is available. The operation may be optional or non-optional (i.e. the user has no opportunity to make his own selection). It will be appreciated from the foregoing that although it is particularly desirable for the user to play a part in the selection of the position of one or more win lines, certain features are of advantage even if this facility is not provided, and therefore the facility should not be regarded as an essential feature of the invention.

8. Following the spinning of the reels, there may be provided a number of separate opportunities to position win lines (either automatically or manually), the relative positions of the reels being moved inbetween the positioning operations. This may be a special bonus feature provided only on certain occasions, and may for example involve the "shuffling" of the reels, i.e. their independent movement back and forth, following which the reels are halted, the position of a win line selected and if appropriate a winning credit value awarded, and the reels are then reshuffled to allow a further win line selection operation. This can be repeated a random or pseudo-random number of times. Instead of shuffling, the reels may be re-spun automatically, the reels may be spun and the user allowed to halt them independently, or the user may be allowed to nudge the reels. This facility may be provided at the beginning, rather than the end, of a game.

9. The machine may be operable to calculate and indicate to the user a win line which if selected would give rise to a winning award, taking into account the present positions of the reels and the user's ability to position the win lines (e.g. the number of "win line nudges" he has available). Preferably, the machine calculates and indicates the best possible positioning of the win line. The indication of a win line can be achieved by, for example, illuminating an indicator associated with that line, illuminating the actual reel symbols on the win line, or providing a display of the amount of credit to be won (which in combination with the conventional display indicating the winning values awarded for different combinations of symbols allows the user to determine the location of the win line calculated by the machine).

A particularly attractive embodiment of the invention has the facility to gamble the number of win lines as mentioned in paragraph number 2 above. This facility is added to a machine such as those described in EP-A-0148001 and GB-A-2153572, the disclosures of which are incorporated herein by reference. In those machines, the user can carry out two successive gambling operations, the first gambling operation being effective on certain occasions to increase the effective stake placed on the second gambling operation. Thus, the win values for particular combinations of symbols will be greater than if the effective stake had not been increased. The two gambling operations could if desired employ the same reels.

In a modification of this according to the present invention, the initial gambling operation may also be effective to increase the number of win lines (which may or may not be user-positionable). Thus, referring for example to Figure 1 of EP-A-0148001, the amount normally won by the player in response to a particular combination of symbols being displayed on a win line 18 corresponds to the respective value in a column 24 of a display 20 associated with a 10p stake. Other columns show the win values which are awarded if instead the stake has effectively been increased to 20p, 30p, 40p, 50p or 60p following one or more preliminary stake gambling operations. In the modification, if the user has effectively increased his stake from 10p to either 20p or 30p, he in addition increases the number of win lines from one to two. If his stake is increased to 40p or 50p, he is awarded a total of three win lines, and if it is increased to 60p he is awarded a total of four win lines.

Instead, the user may have the option of selecting either an increased stake or an increased number of win lines. As a further modification, the preliminary stake gambling operation may result sometimes in an increased effective stake and other times in an increased number of win lines.

CLAIMS

1. A gaming machine which is operable to play games each involving producing a display of symbols forming a plurality of different combinations, the machine being able to select under at least partial control of a player at least one of the combinations after they have been displayed and to award a win to the player if a selected combination comprises a predetermined winning symbol or group of symbols.

2. A machine as claimed in claim 1, wherein the machine is operable to make an initial selection of a combination of the displayed symbols, and the user is able to alter the selection so as to select instead a different combination of the displayed symbols.

3. A machine as claimed in claim 2, wherein the different combinations of symbols form an ordered sequence which, in a nudging operation, can be selected in turn by the player.

4. A machine as claimed in any preceding claim, wherein the symbols in each combination are aligned, whereby the different combinations of symbols form a plurality of potential win lines.

5. A machine as claimed in claim 4, in which there are at least two potential win lines which are not parallel to each other.

6. A machine as claimed in any preceding claim, wherein the machine is able to select, under at least partial control of the player, a plurality of the displayed combinations.

7. A machine as claimed in claim 6, wherein the number of displayed combinations which can be selected is variable.

8. A machine as claimed in claim 7, wherein the machine is operable to determine on a random or pseudo-random basis the number of displayed combinations which can be selected.

9. A machine as claimed in claim 8, wherein the machine is operable before producing said display of symbols to carry out a gambling operation in order to determine the number of combinations which can be selected.

10. A machine as claimed in claim 9, wherein said gambling operation is additionally able to determine the amounts of wins awarded as a consequence of selected combinations comprising predetermined winning symbols or groups of symbols, and thus the effective stake placed on a game.

11. A machine as claimed in any preceding claim, wherein the machine is operable, during the playing of succession of games each involving the altering of the displayed symbols, to permit the player on random or pseudo-random occasions to take part in the control of the selection of a displayed combination.

12. A machine as claimed in any preceding claim, wherein the displayed symbols include a plurality of symbols from each of a plurality of sets of symbols carried by respective mechan-

ical or simulated reels.

13. A machine as claimed in claim 12 when directly or indirectly dependent on claim 4, wherein the potential win lines include a win line formed by correspondingly-positioned symbols on the respective reels, and a further win line formed by symbols in different positions on the respective reels.

14. A gaming machine which is operable to display symbols in a plurality of combinations and thereafter to award a win to a player if a predetermined symbol or combination of symbols is aligned with at least one win line, wherein the location of the or each win line and/or the number of win lines is/are selected at least in part by the machine on a random or pseudo-random basis.

15. A gaming machine as claimed in claim 14, wherein the gaming machine is operable to perform a gambling operation which determines the number of win lines prior to the symbols being displayed in said combinations.

16. A gaming machine as claimed in claim 15, wherein the gambling operation is also operable to determine the amounts awarded as wins to a player as a result of winning symbols or combinations of symbols being aligned with a win line, and thus the effective stake placed on the game.

17. A gaming machine substantially as herein described with reference to the accompanying drawings.

18. A gaming machine which is operable to perform a symbol-displaying operation involving the display of selected symbols from different sets in different combinations, and is thereafter operable to award a win to a player if a predetermined winning symbol or combination of symbols is aligned with at least one win line, wherein the machine is further operable, prior to the symbol displaying operation, to offer the user the option of an initial gambling operation, and, if the option is selected by the user, to determine the number of win lines on a random or pseudo-random basis.